We claim:

1. A method for electing a leader node among a plurality of redundant nodes including at least a first node and a second node comprising:

exchanging age information among the plurality of redundant nodes;

5   at the first node,

determining whether the first node is oldest based on the age information exchanged;

concluding that the first node is the leader node in response to determining that the first node is the oldest; and,

10   at the second node,

determining whether the second node is the oldest based on the age information exchanged;

concluding that the second node is the leader node in response to determining that the second node is the oldest.

15   2.   The method of claim 1, wherein the plurality of redundant nodes also includes a third node, the method further comprising, at the third node:

determining whether the third node is the oldest based on the age information exchanged;

concluding that the third node is the leader node in response to determining that the third node is the oldest.

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3. The method of claim 2, wherein the plurality of redundant nodes also includes a fourth node, the method further comprising, at the fourth node:

determine whether the fourth node is the oldest based on the age information exchanged;

5   concluding that the fourth node is the leader node in response to determining that the fourth node is the oldest.

4. The method of claim 1, wherein the age information includes how long each of the plurality of nodes has been online.

5. The method of claim 1, wherein the method is periodically repeated.

10   6. The method of claim 1, wherein the method is reperformed when any of the plurality of nodes has detected that a failure has occurred which may have affected the leader node.

7. A method for performance by a node comprising:

transmitting information particular to the node to a plurality of other nodes, the

15   information relating to criteria by which a leader node is to be determined;

receiving information from the other nodes particular to the other nodes and relating to the criteria by which the leader node is to be determined; and,

determining whether the node is the leader node by comparing the information particular to the node with the information particular to the other nodes.

8. The method of claim 7, further comprising periodically repeating the method to redetermine which node of the node and the plurality of other nodes is the leader node.

9. The method of claim 7, wherein transmitting the information particular to the node comprises multicasting the information particular to the node.

5   10. The method of claim 7, wherein the information particular to the node comprises age information particular to the node, and the information particular to the other nodes comprises age information particular to the other nodes.

11. The method of claim 7, wherein the criteria comprises electing the leader node as the oldest node based on the age information.

10   12. The method of claim 7, wherein the method is performed by execution of a computer program stored on a machine-readable medium by a processor.

13. A system comprising:

a plurality of redundant nodes; and,

a leader node elected from the plurality of redundant nodes by using a weak leader

15   election approach.

14. The system of claim 13, wherein each node of the plurality of redundant nodes exchanges information with other nodes of the plurality of redundant nodes, and

determines whether it is the leader node based on the information received from the other nodes.

15. The system of claim 14, where the information comprises age information.

16. An architecture for an automation system, the automation system to control and
5   monitor a plurality of devices, the architecture comprising:

at least one look-up service to maintain at least one database of the plurality of devices by a plurality of device attributes including device type and physical location, and of a plurality of device objects corresponding to the plurality of devices by mapping a name for each device object to at least one address for each device object;

10   a soft-state store to manage at least periodic refresh information for the plurality of devices and the plurality of device objects, the refresh information managed by the soft-state store as a plurality of soft-state variables;

a publication/subscription eventing component to enable subscriptions to events related to changes in the plurality of soft-state variables managed by the soft-state store;

15   and,

at least one system management daemon having a plurality of redundant instances in which a leader instance among the plurality of redundant instances is elected by using a weak leader election approach.

17. The architecture of claim 16, wherein the at least one system management daemon
20   comprises a power line monitoring daemon.